

**FRESNO, CALIFORNIA
CLASS SPECIFICATION**

WATER SYSTEMS TELEMETRY & DISTRIBUTED CONTROL SPECIALIST

FLSA STATUS:

Non-Exempt

CLASS SUMMARY:

The Water Systems Telemetry & Distributed Control Specialist is the second level in a three level Utilities Telemetry Systems series. Incumbents are responsible for performing journey level administration, maintenance, and operation of computerized distributed control, SCADA, telemetry and other computerized network systems.

Incumbents in the classification may be required to be on standby duty on a rotating basis to respond to emergencies.

The Water Systems Telemetry & Distributed Control Specialist is distinguished from the Water Systems Telemetry & Distributed Control Technician by its responsibility for performing journey level maintenance and operations of computerized distributed control, telemetry, and other network systems. The Water Systems Telemetry & Distributed Control Specialist is distinguished from the Senior Water Systems Telemetry & Distributed Control Specialist, which is responsible as lead worker, for making work assignments, overseeing the work of technicians, training, ordering preparing reports, and performing administrative tasks in the absence of the supervisor.

TYPICAL CLASS ESSENTIAL DUTIES: (These duties are a representative sample; position assignments may vary.)

**FRE-
QUENCY**

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|----|--|-------------------|
| 1. | Installs, configures, maintains, and troubleshoots workstation problems related to hardware and software; generates and maintains computer images. | Daily
25 – 40% |
| 2. | Installs, configures, and maintains applicable computer servers, switches, and routers. | Weekly
5% |
| 3. | Performs a variety of administrative tasks in support of division operations, which may include: coordinating telephone and radio changes, upgrades, and repairs; installing and configuring various software applications; planning for future distributed control and network expansions; installing, maintaining, distributing, and configuring proximity badge access systems; assigning work orders; and/or, performing other related activities. | Daily
10 – 25% |
| 4. | Programs various PLCs, including Modicon, GE, and Allen Bradley equipment. | Daily
0 – 25% |
| 5. | Designs, installs, configures, operates and maintains HMI application software, such as Factory Link and RSView32. | Daily
10 – 25% |
| 6. | Installs, configures, and maintains applicable databases such as Oracle and SQL. | Daily
5% |

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<u>TYPICAL CLASS ESSENTIAL DUTIES:</u> (These duties are a representative sample; position assignments may vary.)		<u>FRE- QUENCY</u>
7.	Monitors and maintains hardware and software inventory and notifies appropriate internal staff of replenishment and/or replacement needs.	Daily 5%
8.	Designs, installs, and maintains radio telemetry systems.	Weekly 0 - 5%
9.	Designs, installs, and maintains distributed control systems.	Monthly 10%
10.	Designs, installs, configures, and maintains CCTV system and associated servers.	Monthly 0 - 5%
11.	Installs, maintains, and configures applicable networks, including Control Net, Modbus, Modbus TCP, Modbus Plus, and programmable logic controllers (PLCs).	Monthly 5%
12.	Designs, installs, maintains, and configures network infrastructures and applications.	Monthly 5%
13.	Orders and maintains inventory for a variety of supplies and equipment; prepares purchase orders; and assists in budget planning related to IT planning.	Daily 5%
14.	Coordinates and oversees special projects.	Monthly 10%
15.	Writes, debugs, and maintains computer reports and applications.	Weekly 10%
16.	Documentation of systems, services, SCADA, and distributed control.	Monthly 5 – 10%
17.	Conducts presentations and end-user training.	As Required
18.	Performs other duties of a similar nature or level.	As Required

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Training and Experience (positions in this class typically require):

- Two years of experience as a Water Systems Telemetry and Distributed Control Technician with the City of Fresno or a Bachelor's Degree in Computer Science, Engineering, Water Science, or closely related field is required;

OR

- An equivalent combination of education and experience sufficient to successfully perform the essential duties of the job such as those listed above. Increasingly responsible experience in LAN administration, computer programming, or distributed control systems may be substituted for the required education on a year for year basis.

Licensing Requirements (positions in this class typically require):

Some positions, based on assignment, may require:

- Basic Class C License
- MCSA or MCSE certification is desirable;
- CCNA or CCNP certification is desirable;
- OCP certification is desirable.

Positions in the Water Division will require a State of California Water Distribution D-2 Certification within 18 months of appointment.

Knowledge (position requirements at entry):

Knowledge of:

- Computers and applicable software and database systems
- Applicable computer software packages
- LAN, Cisco and network topology configurations
- IEEE communication protocols and standards such as SSH, DNS, DHCP, SMTP, X509 and FTP
- Principles and theories of SCADA, distributed control and telemetry systems
- Data backup strategies and software
- TCP/IP networks
- CCTV and security systems
- Programming languages such as HTML and LAMP (Linux, Apache, MySQL, PHP)
- Safe work practices and procedures
- Network security and firewall systems

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Skills (position requirements at entry):

Skill in:

- Using computers and applicable software applications
- Hardware and software debugging
- Prepare and proofread clear, concise, and comprehensive reports, records, and other written documents
- Programming and maintaining PLCs, associated hardware, and network systems
- Designing, implementing, and maintaining database environments and associated tools and services
- Implementing configuration changes to applicable switches and routers
- Communication, interpersonal skills as applied to interaction with coworkers, supervisor, the general public, business, organizations, elected and appointed officials, media, etc. sufficient to exchange or convey information, give/receive work direction

Physical Requirements:

Positions in this class typically require: feeling, finger dexterity, grasping, hearing, repetitive motions, seeing, talking, bending, kneeling, lifting, reaching, standing, stooping, walking, balancing, climbing, crawling, crouching, pulling and pushing.

Very Heavy Work: Exerting up to 100 pounds of force occasionally, and/or in excess of 50 pounds of force frequently, and/or in excess of 20 pounds of force constantly to move objects.

Incumbents may be subjected to moving mechanical parts, electrical hazards, vibrations, fumes, odors, dusts, poor ventilation, adverse weather conditions, environmental hazards, gasses, chemicals, oils, work space restrictions, inadequate lighting, intense noises and travel.

Note:

The above job specification is intended to represent only the key areas of responsibilities; specific position assignments will vary depending on the business needs of the department.

Classification History:

Draft prepared by Fox Lawson & Associates (LM)

Date: 12/2007

Reviewed by the City of Fresno

Date: 5/2008